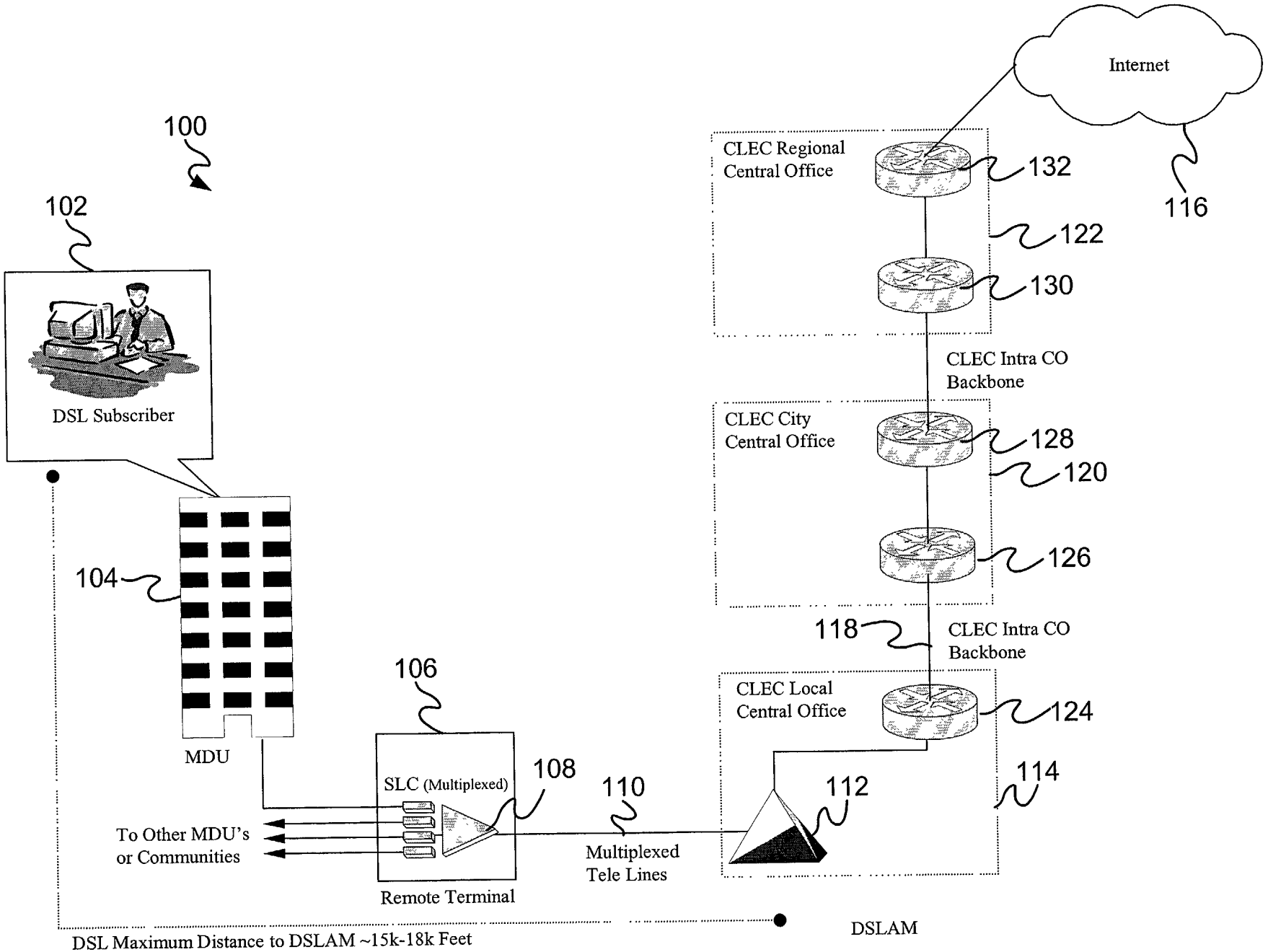

Internet
100
102
DSL Subscriber
CLEC Regional
Central Office
132
116
122
130
CLEC Intra CO
Backbone
CLEC City
Central Office
128
120
126
118
CLEC Intra CO
Backbone
CLEC Local
Central Office
124
104
MDU
106
SLC (Multiplexed)
108
110
112
114
To Other MDU's
or Communities
Multiplexed
Tele Lines
Remote Terminal
DSLAM
DSL Maximum Distance to DSLAM ~15k-18k Feet

FIG. 1

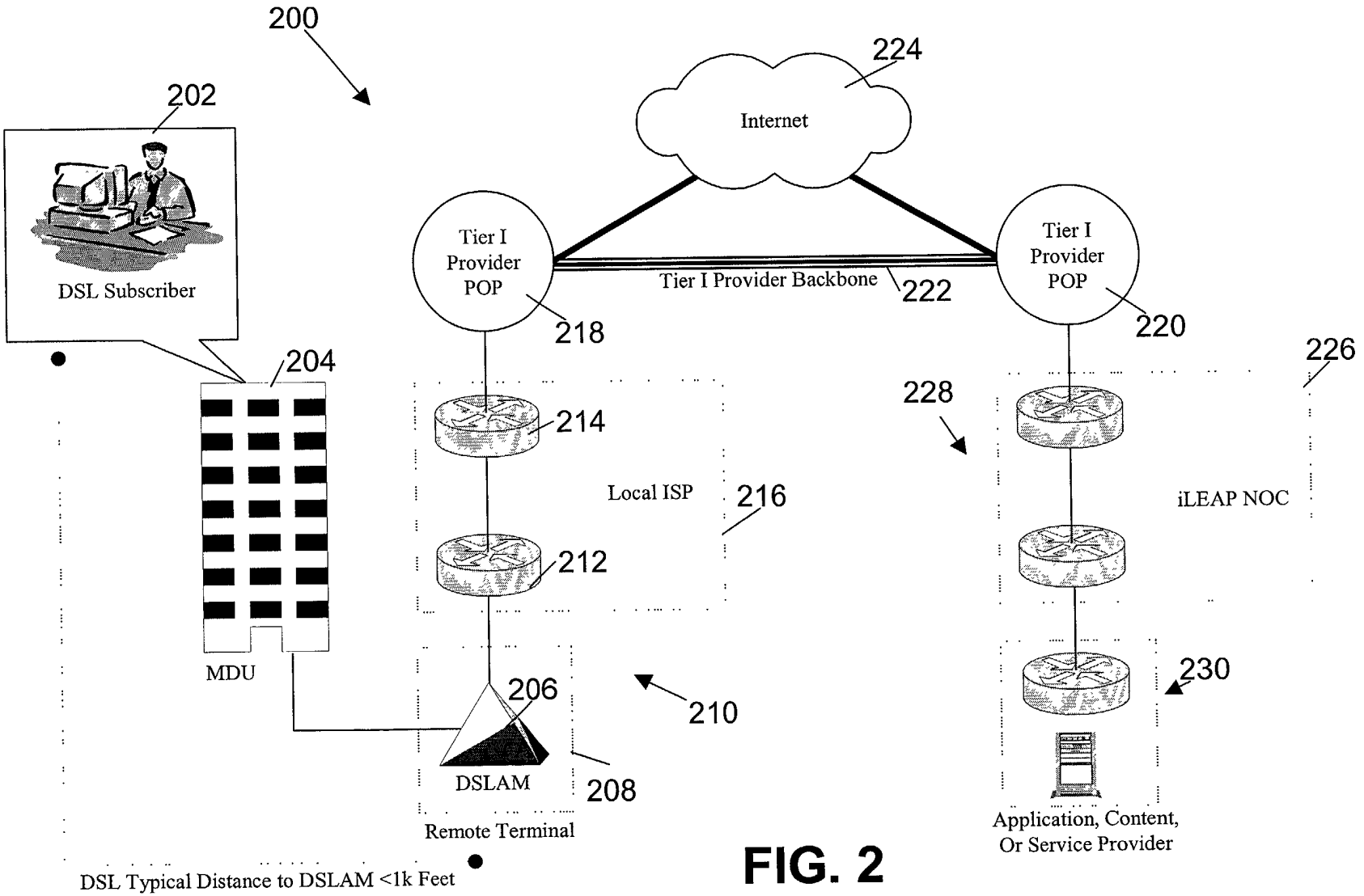
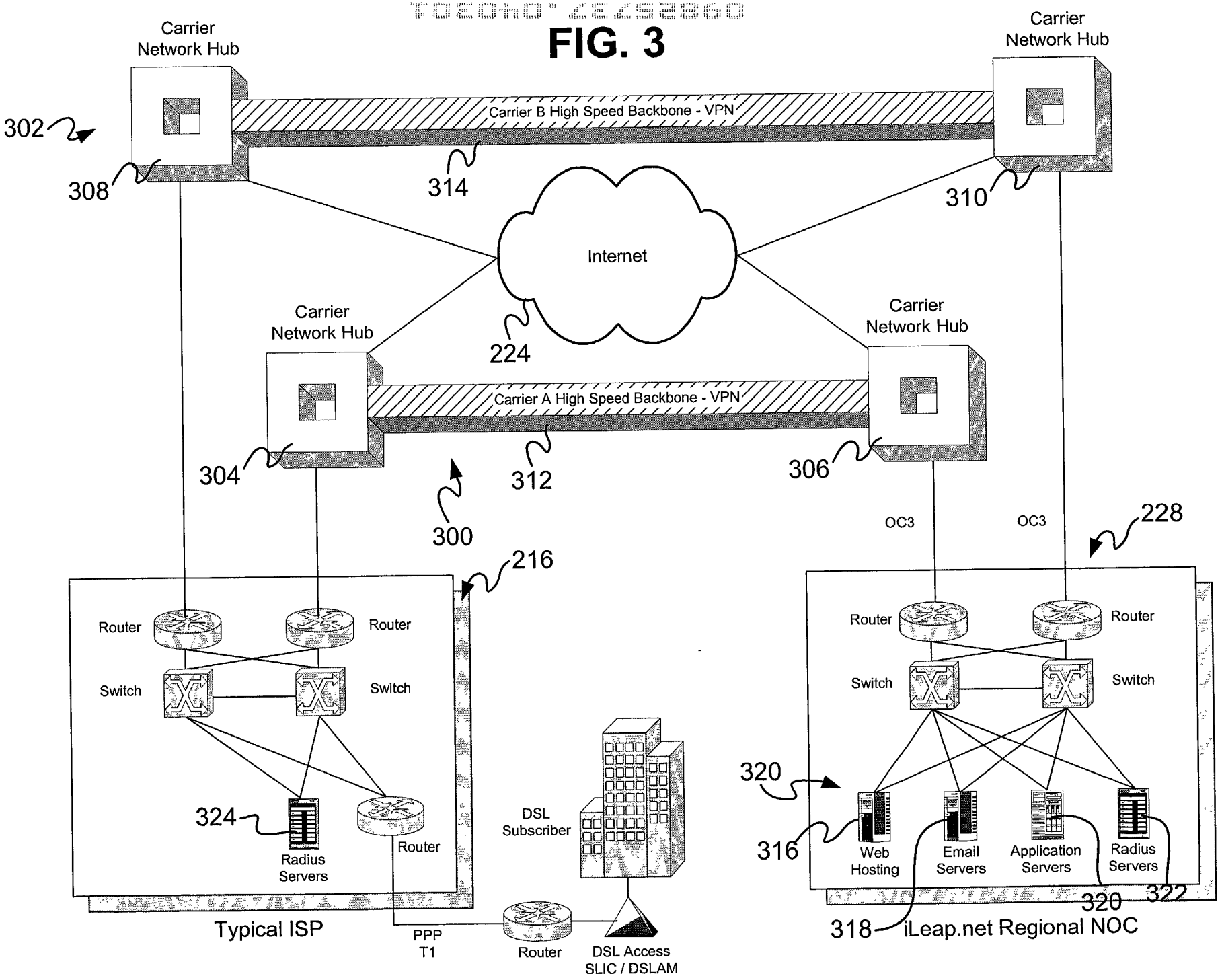

200
202
DSL Subscriber
204
MDU
Internet
224
Tier I
Provider
POP
218
Tier I Provider Backbone
222
Tier I
Provider
POP
220
226
228
214
Local ISP
216
iLEAP NOC
212
206
210
230
DSLAM
208
Remote Terminal
Application, Content,
Or Service Provider
DSL Typical Distance to DSLAM <1k Feet

FIG. 2

FIG. 3



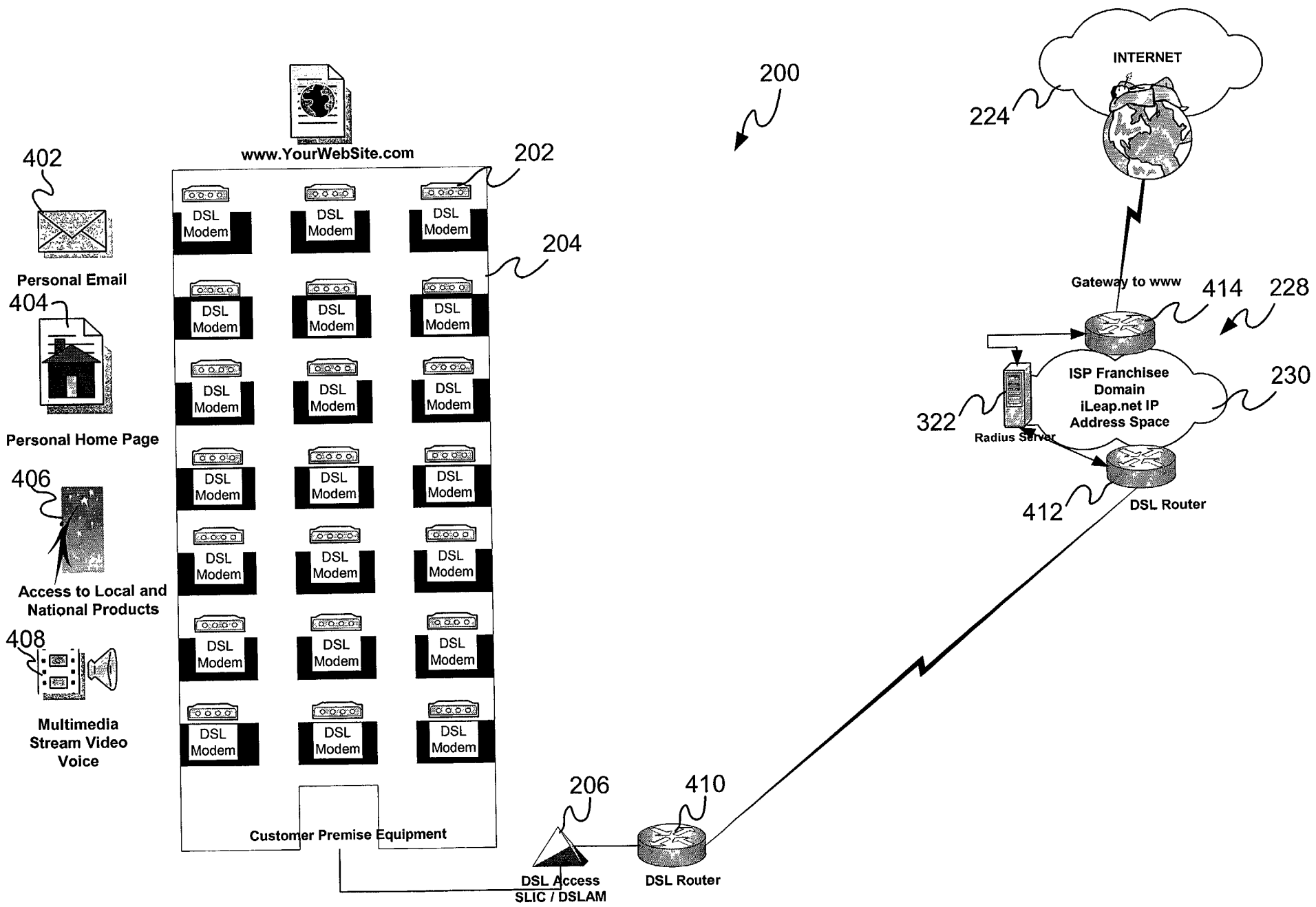

200
INTERNET
224
www.YourWebSite.com
202
204
402
Personal Email
404
Personal Home Page
406
Access to Local and National Products
408
Multimedia Stream Video Voice
DSL Modem
Customer Premise Equipment
206
410
DSL Access SLIC / DSLAM
DSL Router
Gateway to www
414
228
ISP Franchisee Domain iLeap.net IP Address Space
230
322
Radius Server
412
DSL Router

FIG. 4

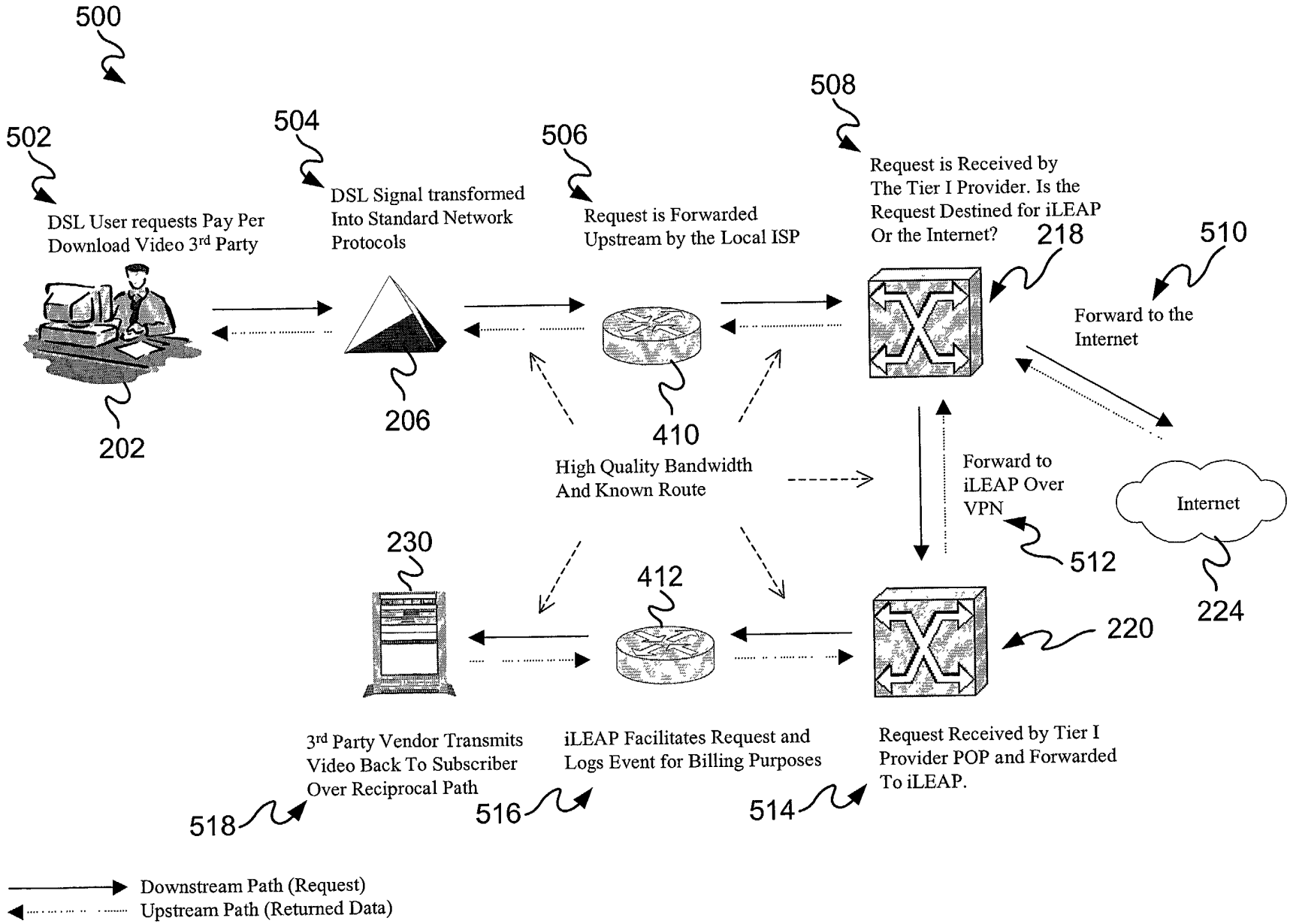

500
502
DSL User requests Pay Per Download Video 3rd Party
202
504
DSL Signal transformed Into Standard Network Protocols
206
506
Request is Forwarded Upstream by the Local ISP
410
508
Request is Received by The Tier I Provider. Is the Request Destined for iLEAP Or the Internet?
218
510
Forward to the Internet
High Quality Bandwidth And Known Route
Forward to iLEAP Over VPN
512
Internet
224
230
412
220
3rd Party Vendor Transmits Video Back To Subscriber Over Reciprocal Path
518
iLEAP Facilitates Request and Logs Event for Billing Purposes
516
Request Received by Tier I Provider POP and Forwarded To iLEAP.
514
Downstream Path (Request)
Upstream Path (Returned Data)

FIG. 5

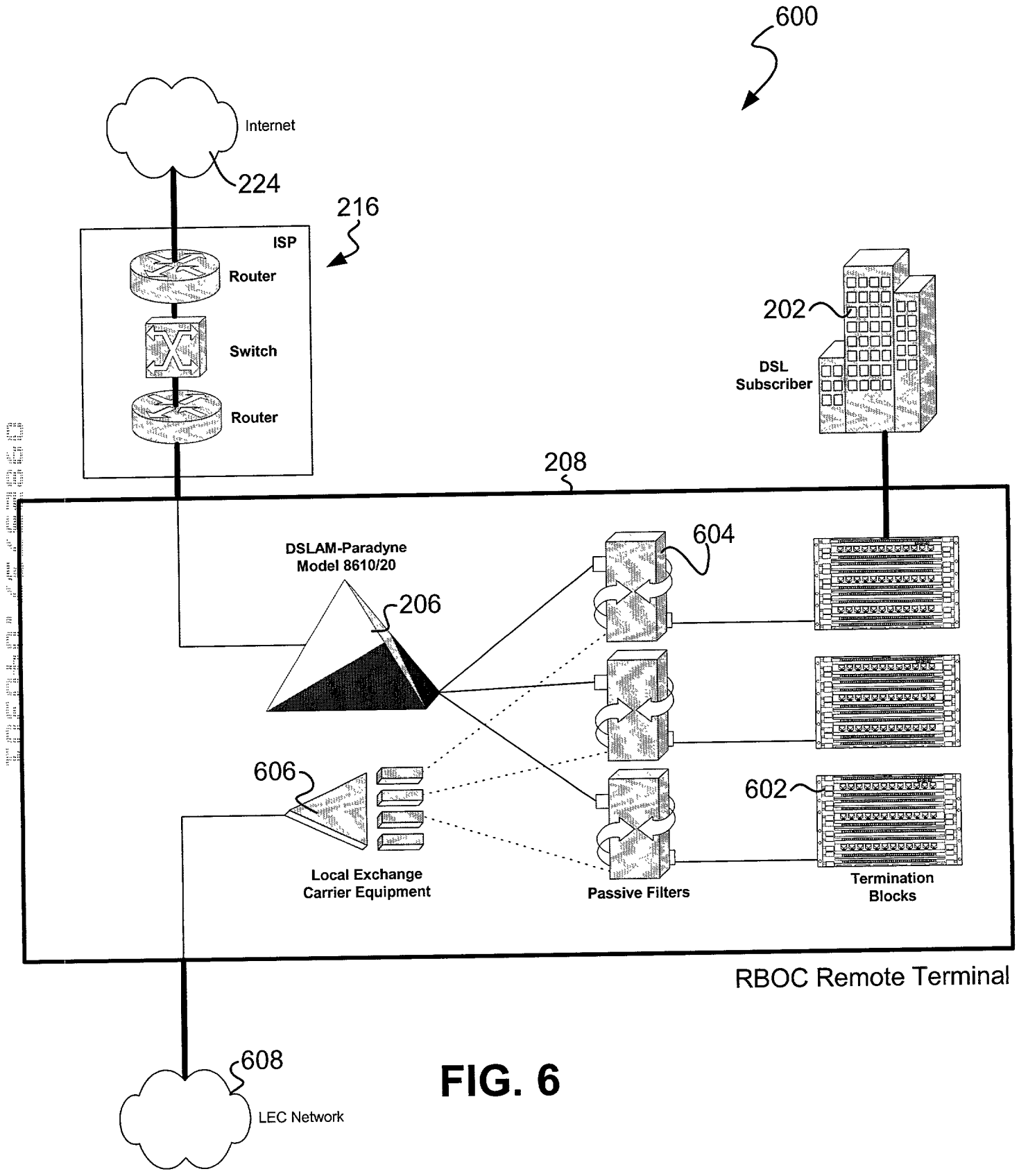

600
Internet
224
216
ISP
Router
Switch
Router
202
DSL
Subscriber
208
DSLAM-Paradyne
Model 8610/20
206
604
606
602
Local Exchange
Carrier Equipment
Passive Filters
Termination
Blocks
RBOC Remote Terminal
608
LEC Network

FIG. 6

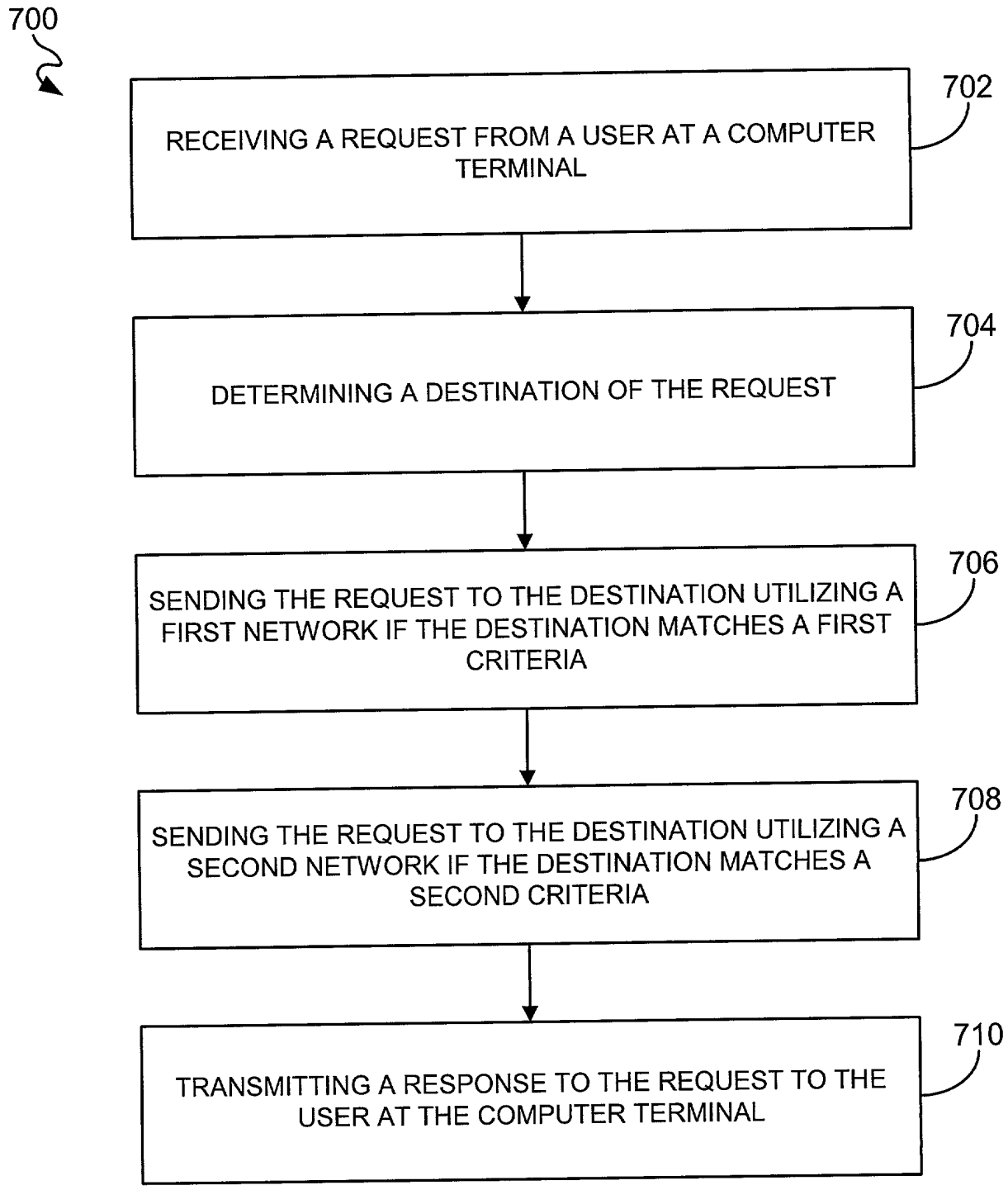

700
RECEIVING A REQUEST FROM A USER AT A COMPUTER TERMINAL
702
DETERMINING A DESTINATION OF THE REQUEST
704
SENDING THE REQUEST TO THE DESTINATION UTILIZING A FIRST NETWORK IF THE DESTINATION MATCHES A FIRST CRITERIA
706
SENDING THE REQUEST TO THE DESTINATION UTILIZING A SECOND NETWORK IF THE DESTINATION MATCHES A SECOND CRITERIA
708
TRANSMITTING A RESPONSE TO THE REQUEST TO THE USER AT THE COMPUTER TERMINAL
710

FIG. 7

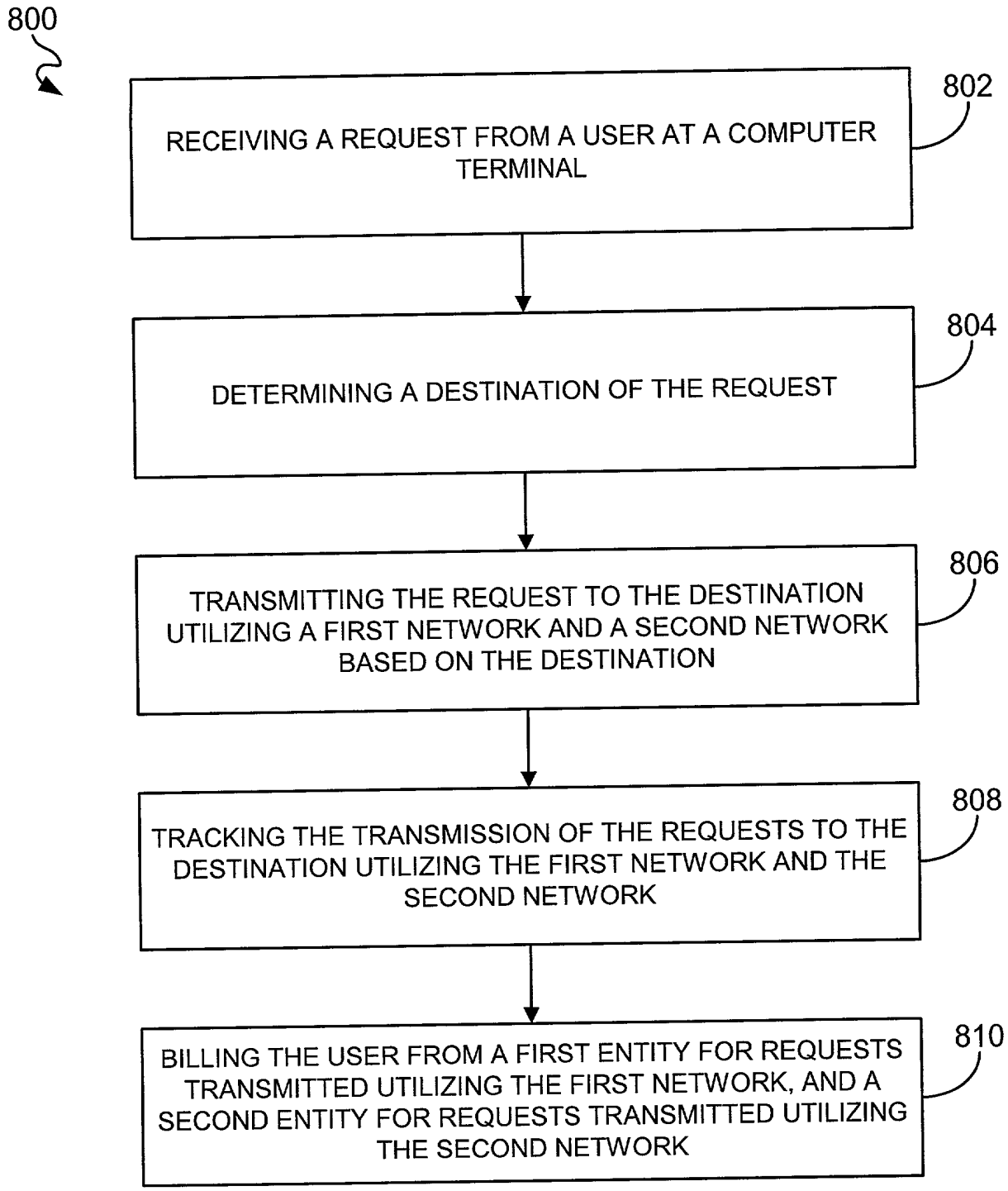

800
RECEIVING A REQUEST FROM A USER AT A COMPUTER TERMINAL
802
DETERMINING A DESTINATION OF THE REQUEST
804
TRANSMITTING THE REQUEST TO THE DESTINATION UTILIZING A FIRST NETWORK AND A SECOND NETWORK BASED ON THE DESTINATION
806
TRACKING THE TRANSMISSION OF THE REQUESTS TO THE DESTINATION UTILIZING THE FIRST NETWORK AND THE SECOND NETWORK
808
BILLING THE USER FROM A FIRST ENTITY FOR REQUESTS TRANSMITTED UTILIZING THE FIRST NETWORK, AND A SECOND ENTITY FOR REQUESTS TRANSMITTED UTILIZING THE SECOND NETWORK
810

FIG. 8

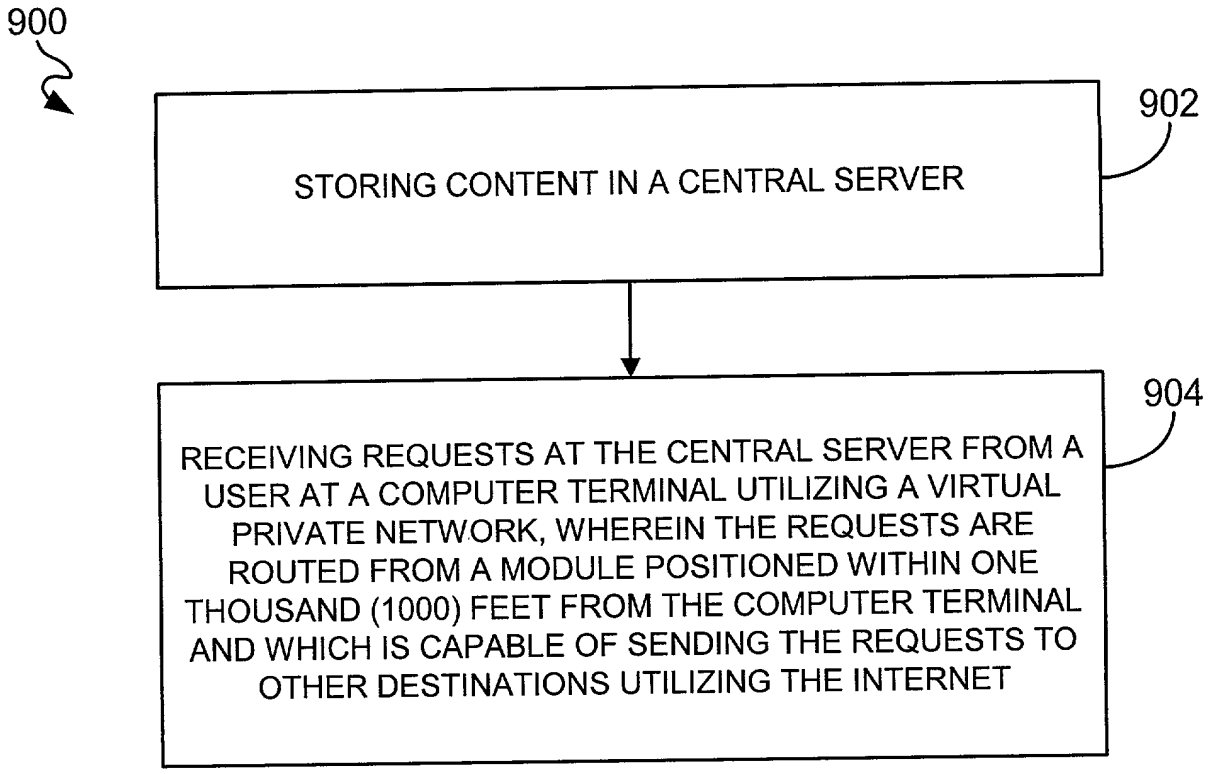

900
STORING CONTENT IN A CENTRAL SERVER
902
RECEIVING REQUESTS AT THE CENTRAL SERVER FROM A USER AT A COMPUTER TERMINAL UTILIZING A VIRTUAL PRIVATE NETWORK, WHEREIN THE REQUESTS ARE ROUTED FROM A MODULE POSITIONED WITHIN ONE THOUSAND (1000) FEET FROM THE COMPUTER TERMINAL AND WHICH IS CAPABLE OF SENDING THE REQUESTS TO OTHER DESTINATIONS UTILIZING THE INTERNET
904

FIG. 9

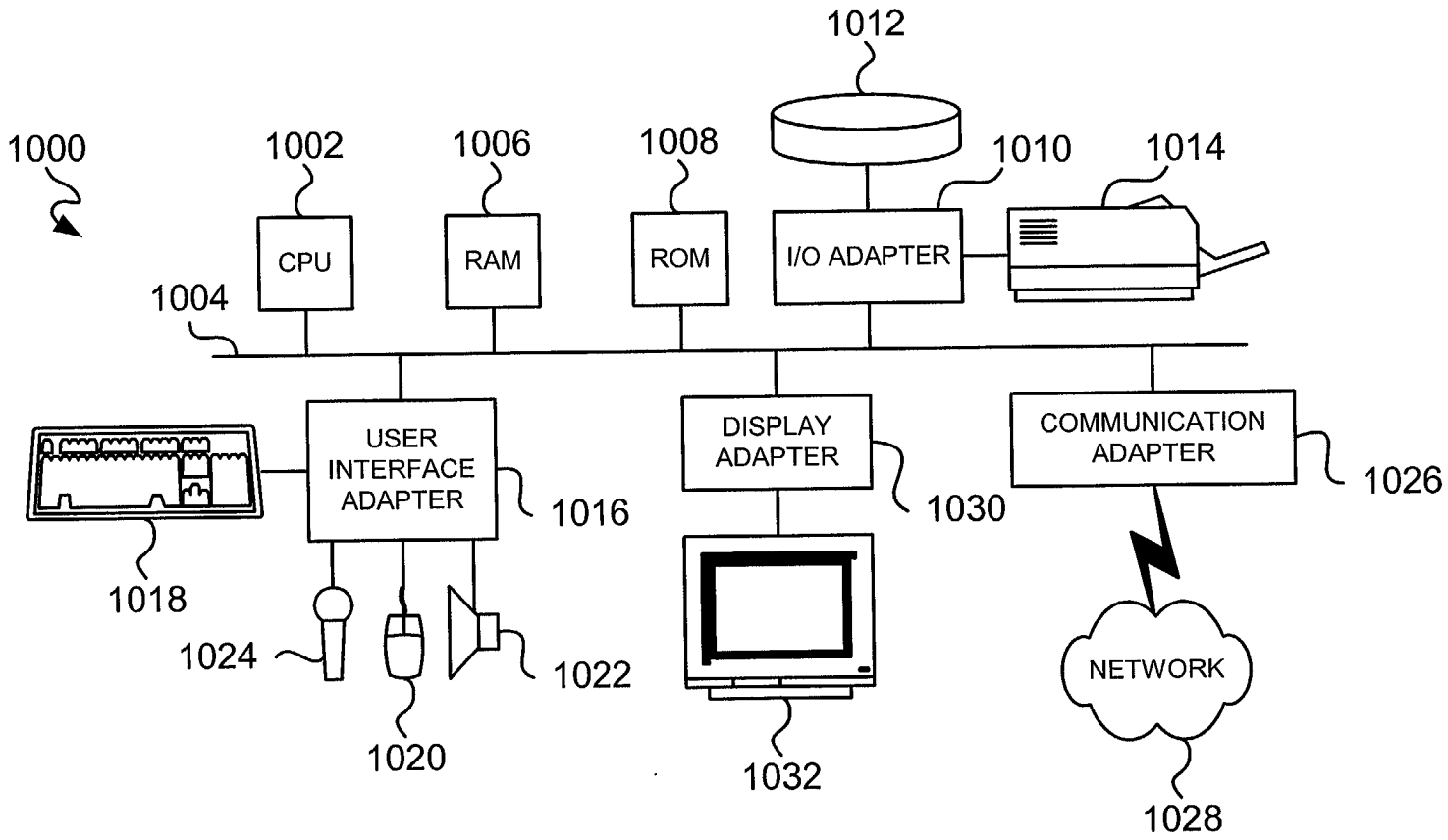


FIG. 10